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国产赖草属新分类群*

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NEW TAXA OF *LEYMUS* FROM CHINA

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关键词 弯曲赖草;阔颖赖草;粗穗赖草;纤细赖草

1 弯曲赖草 新种 图1

Leymus flexus L. B. Cai, sp. nov.

Species nova affinis *L. angusto* (Trin.) Pilger, sed spica leviter flexa; spiculis 3 vulgo natis e nodo; flosculis 3～7 per spiculam; glumis inferne angustis basin lemmatis primi non obtegentibus bene differt.

Herbae perennes, rhizomatibus deorsum extensis. Culmi laxe fasciculati, erecti, 60～100 cm alti, 2～3 mm in diam. 3～5-nodes. Vaginae foliorum internodiis longiores vel breviores, glabrae vel inferiores pubescentes, eae vetae basales persistentes interdum laceratae in fibras; ligulae membranaceae, circ. 1.5 mm longae, apice obtusae; laminae saepe involutae, 15～27 cm longae, 4～5 mm latae, supra scabrellae, infra glabrae. Spica laxa, leviter flexa, brunneola, 15～25 cm longa, circ. 1 cm lata; rhachis dilute gracilis, dense incano-pubescens, internodiis generatim 8～15 mm longis; spiculae vulgo 3 natae e nodo, 13～17 mm longae, 3～7-florae; rachillae scabrosae, internodiis 0.5～1.5 mm longis; glumae lineari-lanceolatae, 11～14 mm longae, 1～2-nerves, margine membranaceae ciliatae, apice in aristas angustatae, duae subaequales, basin lemmatis primi non obtegentes; lemmata lanceolata, 5-nervia, dense villosa vel glabra, primum 9～10 mm longum, apice aristata, aristis 2～3 mm longis; paleae lemmata subaequantes, superne ad carinas breviter ciliatae; antherae flavae, 3～4 mm longae; ovarium obovatum, superne pubescens.

Qinghai (青海):Xinghai (兴海), in clivis, alt. 3200 m, 1978-08-19, P. C. Kuo (郭本兆) 532 (holotypus, HNWP); Xining (西宁), Y. H. Wu *et al.* (吴玉虎等) 2185; ibid. loc., Z. D. Wei (魏振铎) 40040.

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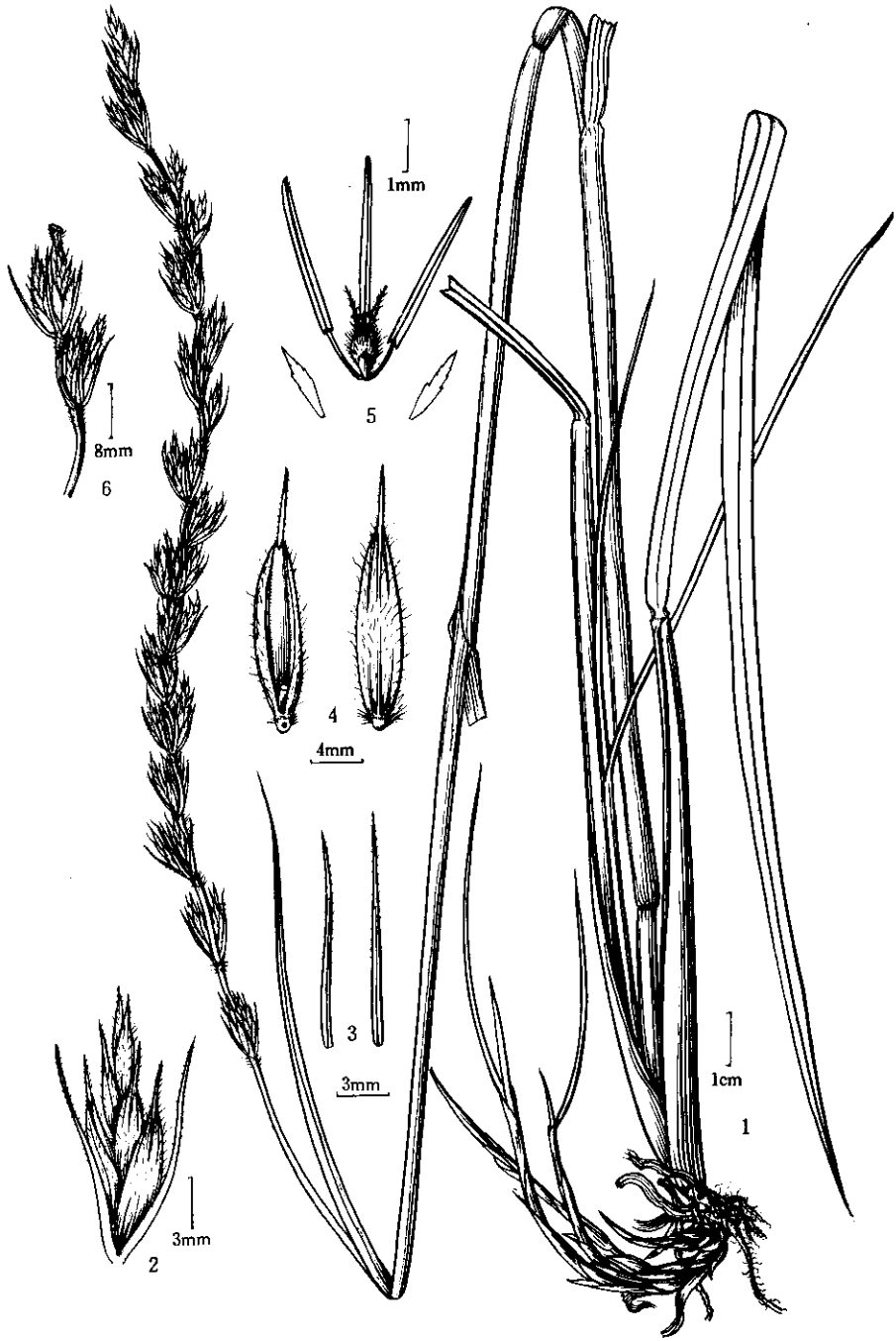

图1 弯曲赖草 1. 植株；2. 小穗；3. 颖片；4. 第一小花背面和腹面；5. 浆片、雄蕊及雌蕊；6. 花序的一部分。(阎翠兰绘)

Fig. 1 *Leymus obstipus* 1. plant; 2. spikelet; 3. glumes; 4. dorsal and ventral surfaces of the first floret; 5. lodicules, stamens and pistil; 6. portion of spike.

多年生草本，具下伸根状茎。秆疏生，直立，高 60～100 cm，茎粗 2～3 mm，具 3～4 节。叶鞘长于或短于节间，无毛或下部叶鞘具柔毛，基部者有时撕裂呈纤维状；叶舌膜质，长约 1.5 mm，先端钝圆；叶片常内卷，长 15～27 cm，宽 4～5 mm，上面微粗糙，下面平滑。

穗状花序疏松,微弯,淡棕色,长 15～25 cm,宽约 1 cm;穗轴略细,密被灰白色短柔毛,节间一般长 8～15 mm;小穗通常 3 枚生于节上,长 13～17 mm,含 3～7 小花;小穗轴明显粗糙,节间长 0.5～1.5 mm;颖线状披针形,长 11～14 mm,1～2 脉,边缘膜质具纤毛,先端狭窄如芒,两颖近相等,不覆盖第一外稃基部;外稃披针形,具 5 脉,密被长柔毛或无毛,第一外稃长 9～10 mm,先端具 2～3 mm 的短芒;内稃与外稃近等长,脊上部具短纤毛;花药黄色,长 3～4 mm;子房倒卵形,上部具柔毛。

本种与窄颖赖草 *L. angustus* (Trin.) Pilger 接近,但其穗状花序微弯曲;穗轴每节一般 3 枚小穗;小穗含 3～7 小花;颖下部窄狭而不覆盖第一外稃基部而明显不同。

2　阔颖赖草　新种　图 2

Leymus latiglumus L. B. Cai, sp. nov.

Species nova *L. mollo* (Trin.) Pilger valde similis, sed spiculis saepe 2 natis e nodo, 18～25 mm longis; flosculis 5～9 per spiculam glumis spiculis brevioribus differt.

Herbae perennes, rhizomatibus deorsum extensis. Culmi erecti, 3～4-nodes, 70～110 cm alti, 2～3 mm diam., Vaginae foliorum scabridae, inferiores internodiis longiores, saepe pubescentes, superiores internodiis breviores, nonnunquam margine ciliatae; ligulae membranaceae, relative breves, circ. 0.8 mm longae; laminae planae vel margine involutae, 10～25 cm longae, 3～5 mm latae, supra scabrae vel dense pubescentes, infra saepe glabrae. Spica erecta, mollis, viridula, 8～15 cm longa, 10～13 mm lata; rhachis dense pubescens, internodiis vulgo 6～11 mm longis, ad basim 20 mm longis; spiculae vulgo 2 natae e nodo, 18～25 mm longae, 5～9-florae; internodia rhachillae 0.5～1.5 mm longa, dense puberula; glumae lanceolatae, 11～16 mm longae, 3～5(～7)-nerves, inferne latae, margine membranaceae ciliatae, apice angustatae, aristatae, duae subaequales; lemmata oblongo-lanceolata, dense villosa, 5～7-nervia, id primum 10～12 mm longum, apice mucronatum, mucrone non ultra 2 mm longo; paleae lemmata aequantes, vel eis breviores, apice retusae, ad carinas duas sparse breviter spinulosae; antherae flavae, circ. 5 mm longae; ovarium subcuneatum, superne pubescens.

Shanxi (山西): Youyu (右玉), alt. 1350 m, in pratis, 1984-09-19, Huangtu Exped. (黄土队) 3718 (holotypus, WUG); Pinglu (平鲁), Shanxi Exped (山西队) 475.

多年生,具下伸根状茎。秆直立,3～4 节,高 70～110 cm,径 2～3 mm。叶鞘微粗糙,下部者长于节间,常具短柔毛,上部者短于节间,有时边缘具纤毛;叶舌膜质,较短,长约 0.8 mm;叶片扁平或边缘内卷,长 10～25 cm,宽 3～5 mm,上面粗糙或密被柔毛,下面通常光滑无毛。穗状花序直立,柔顺,浅绿色,长 8～15 cm,宽 10～13 mm;穗轴密被柔毛,节间通常长 6～11 mm,或基部可达 20 mm;小穗通常 2 枚生于 1 节,长 18～25 mm,含 5～9 小花;小穗轴节间长 0.5～1.5 mm,密被微毛;颖披针形,长 11～16 mm,具 3～5(7)脉,下部宽,边缘膜质、具纤毛,先端狭窄如芒,两颖近等长;外稃长圆状披针形,密被长柔毛,5～7 脉,第一外稃长 10～12 mm,先端具长不及 2 mm 的短尖头;内稃与外稃等长或稍短,先端微凹,两脊疏生短刺毛;花药黄色,长约 5 mm;子房近楔形,上部具柔毛。

本种与滨麦 *L. mollis* (Trin.) Pilger 很相似,但其穗轴每节多着生 2 枚小穗;小穗长

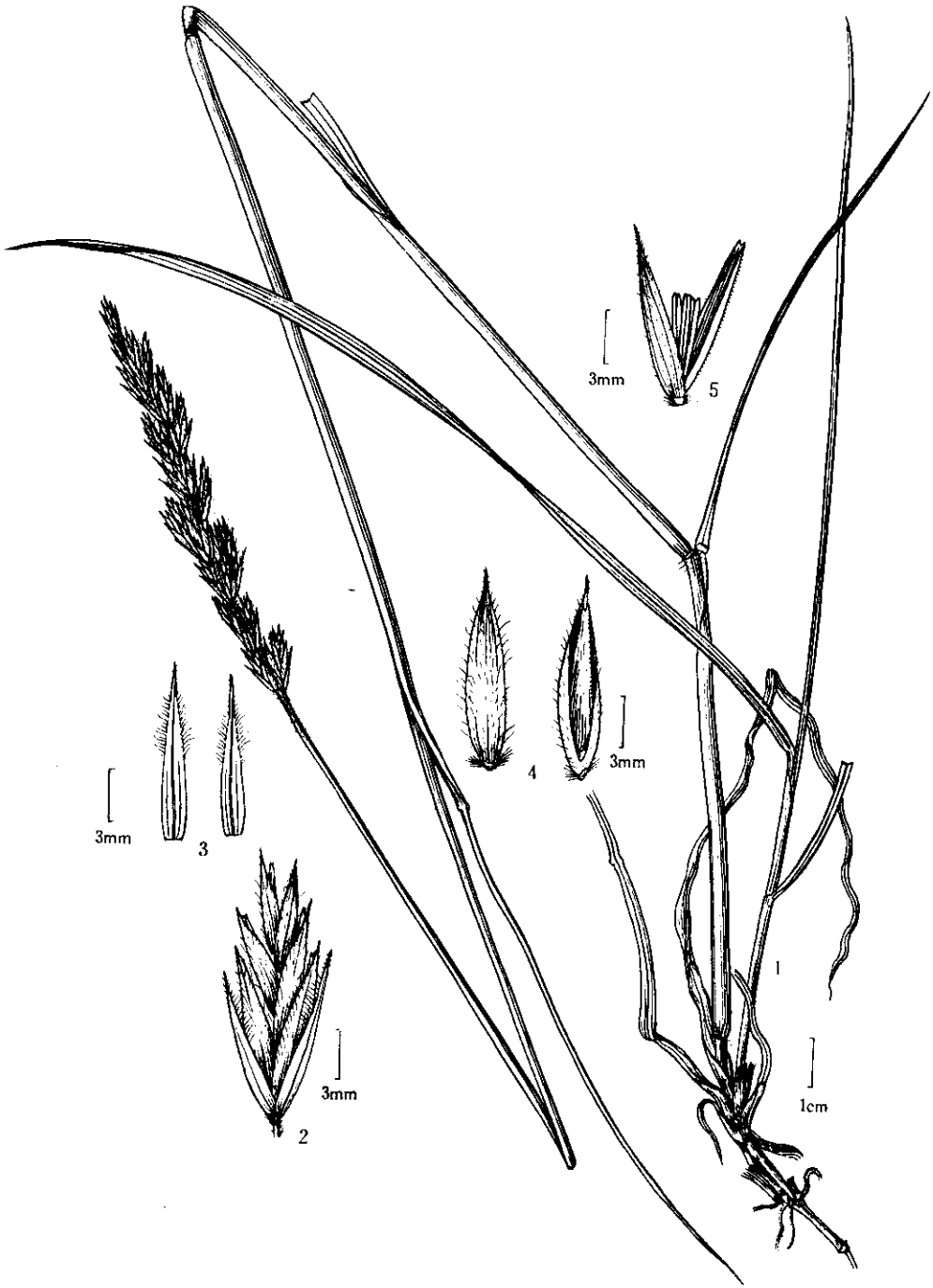

图 2 阔颖赖草 1. 植株；2. 小穗；3. 颖片；4. 第一小花背面和腹面；5. 小花，示花药。（阎翠兰绘）
Fig. 2 *Leymus latiglumus* 1. plant; 2. spikelet; 3. glumes; 4. dorsal and ventral surfaces of the first floret; 5. floret, showing anthers.

18～25 mm，含 5～9 小花；颖短于小穗而与之不同。

3 粗穗赖草 新种 图 3

Leymus crassiusculus L. B. Cai, sp. nov.

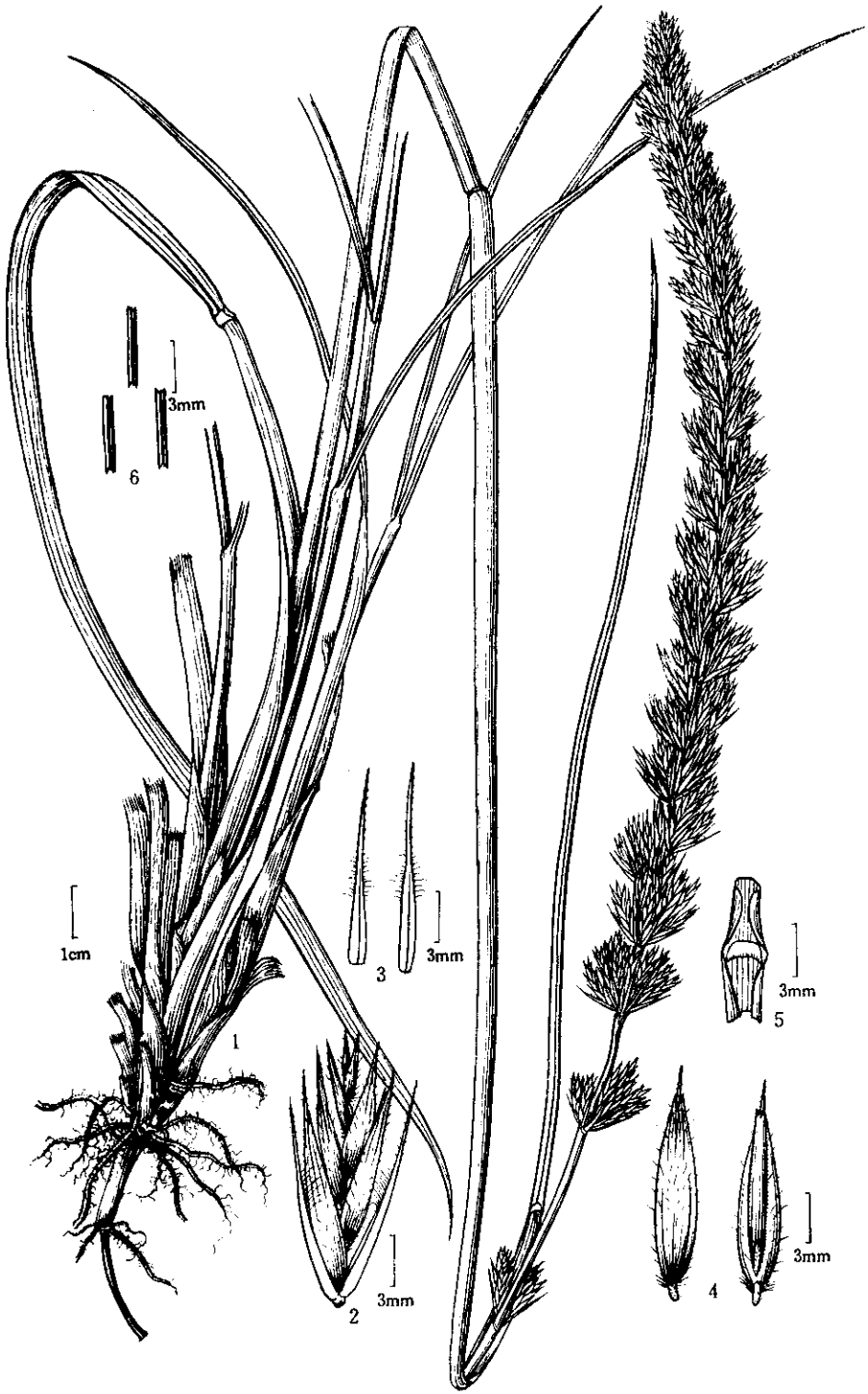

图 3　粗穗赖草　1. 植株；2. 小穗；3. 颖片；4. 第一小花背面和腹面；5. 叶的一段，示叶舌；6. 花药。（阎翠兰绘）
Fig. 3　*Leymus crassiusculus*　1. plant; 2. spikelet; 3. glumes; 4. dorsal and ventral surfaces of the first floret; 5. a segment of leaf, showing ligule; 6. anthers.

Species nova *L. secalino* (Georgi) Tzvel. proximus, sed spica relative crassa et longa;

spiculis saepe 4～6 natis e nodo; glumis 1-nervibus; antheris circ. 5 mm longis differt.

Herbae perennes, rhizomatibus lignosis descendentibus. Culmi erecti, caespitosi, 70～110 cm alti, basi circ. 4 mm crassi, 2～3-nodes. Vaginae foliorum internodiis breviores, glabrae vel interdum ad marginem ciliatae, basales laceratae in fibras et persistentes; ligulae membranaceae, 1.5～2 mm longae, apice truncatae; laminae saepe involutae, 20～42 cm longae, 4.5～7 mm latae, infra et supra glabrae vel supra scabrellae. Spicae confertae, erectae, fulvae, 16～22 cm longae, 1.5～2 cm latae; rhachis grossa, dense villosa, internodiis generatim 4～10 mm longis; spiculae 4～6 (～11) natae e nodo, 12～18 mm longae, 3～7-florae; rhachillae dense pubescentes, internodiis 1～1.5 mm longis; glumae spiculis breviores, lineari-lanceolatae, 1-nerves, margine membranaceae ciliatae, duae subaequales, 10～13 mm longae; lemmata lanceolata, obscure 5-nervia, dense pubescentia, id primum 8～10 mm longum, apice mucronatum, mucrone non ultra 2 mm longo; paleae lemmata subaequantes, apice retusae, ad carinas duas sparse breviter spinifrae; antherae flavae, circ. 5 mm longae; ovarium obovatum, superne pubescens.

Qinghai(青海): Xinghai(兴海), alt. 2550 m, ad margines agrorum, 1965-06-23, T. N. He (何廷农) 0051 (holotypus, HNWP). **Shanxi** (山西): Taiyuan (太原), H. C. Li (李华赐) 94; Pianguan (偏关), X. Y. Liu (刘心源) 15635.

多年生,具木质下伸根茎。秆直立,丛生,高 70～110 cm,茎基粗约 4 mm,具 2～3 节。叶鞘短于节间,无毛或有时边缘具纤毛,基部者常撕裂呈纤维状;叶舌膜质,长 1.5～2 mm,先端截平;叶片通常内卷,长 20～42 cm,宽 4.5～7 mm,两面光滑或上面微粗糙。穗状花序稠密,直立,黄棕色,长 16～22 cm,宽 1.5～2 cm;穗轴粗壮,密被长柔毛,节间通常长 4～10 mm;小穗通常 4～6 枚生于 1 节(稀可达 11 枚),长 12～18 mm,含 4～7 小花;小穗轴密被柔毛,节间长 1～1.5 mm,颖短于小穗,呈线状披针形,具 1 脉,边缘膜质具纤毛,两颖近相等,长 10～13 mm;外稃披针形,具不明显的 5 脉,密被柔毛,第一外稃长 8～10 mm,先端具长不及 2 mm 的短尖头;内稃与外稃近等长,先端微凹,两脊疏生短刺毛;花药黄色,长约 5 mm;子房倒卵形,上部具柔毛。

本种与赖草 *L. secalinus* (Georgi) Tzvel. 接近,但其穗状花序较粗长;穗轴每节通常着生 4～6 枚小穗;颖具 1 脉;花药长约 5 mm 而与之区别。

4 纤细赖草 新变种

Leymus secalinus (Georgi) Tzvel. var. **tenuis** L. B. Cai, var. nov.

A typo spica teniore; spiculis saepe 1～2 natis e nodis, vulgo 2～3-floris; glumis fere subulatis; antheris plerumque 2～3 mm longis differt.

Xizang (西藏): Rutog (日土), circa lacus, alt. 4220 m, 1974-07-13, Xizang Exped. (西藏队) 3509 (holotypus, HNWP); Zanda (扎达), Qing-Zang Exped. (青藏队) 7856; Zhongba (仲巴), Qing-Zang Exped. 6504; Gyirong (吉隆), Tibet. Med. Pl. Exped. (西藏中草药队) 763; ibid. loc., Qing-Zang Exped. 6225.

本变种与原变种的区别在于穗状花序瘦狭;穗轴每节着生 1～2 枚小穗;小穗通常含 2～3 小花;颖近于钻状;花药一般长 2～3 mm。